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Intelligence**

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# **India: Transition Time in the Nuclear Leadership**

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**An Intelligence Assessment**

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*NESA 84-10049  
CR 84-10055  
February 1984*

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# **India: Transition Time in the Nuclear Leadership**

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**An Intelligence Assessment**

This paper was prepared by [redacted]  
Office of Near East and South Asian Analysis, and  
[redacted] Office of Central Reference. It  
was coordinated with the Directorate of Operations.  
Comments and queries are welcome and may be  
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[redacted] or to the Chief, Near East/Africa  
Division, OCR, [redacted]

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**Key Judgments**

*Information available  
as of 27 January 1984  
was used in this report.*

Dr. Raja Ramanna, who was appointed head of the Indian nuclear program in August 1983, is more interested in nuclear weapons research than his predecessor and is less likely to take US nuclear nonproliferation concerns into account in policy decisions. To demonstrate his desire to put more distance between himself and Washington, Ramanna may agree to import Soviet nuclear technology.

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Because Ramanna is already at the mandatory retirement age, he will probably head the nuclear program for only a short time. Ramanna's replacement as head of India's Bhabha Atomic Research Center, a position that is traditionally a steppingstone to the top, will be the most likely candidate to head the nuclear program after Ramanna steps down.

The Indian nuclear program is likely to have a series of short-term chiefs over the next three to four years. The current generation of managers will be retiring soon, and institutional infighting will probably prevent the emergence of a strong successor. As a result, the Indian civil nuclear program probably will experience growing technical and economic problems, and Prime Minister Gandhi may receive misleading or conflicting advice on such critical issues as developing nuclear weapons and responding to the perceived nuclear threat from Pakistan.

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The new generation of Indian nuclear scientists probably will be more nationalistic and less interested in taking US nonproliferation concerns into account than the preceding generation. This new group has already expressed an interest in continuing nuclear weapons research.

If the group favoring development of nuclear weapons continues to lead the nuclear program, its policies could provoke a nuclear arms race between India and Pakistan. Such a course of action would seriously threaten US interests in South Asia and pose long-term security concerns for China and the USSR. A nuclear arms race on the subcontinent would also be a major failure for US nonproliferation policy.

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In our view, the appointment of Raja Ramanna as the head of India's Department of Atomic Energy (DAE) and as chairman of its Atomic Energy Commission (AEC) in August 1983 marks the opening of an extended—and possibly troubled—transition in the leadership of India's nuclear program. Ramanna and the emerging leadership in the nuclear program will, we believe, be less willing than the previous chief, Homi Sethna, to take US views into account in their decisions and will be more interested in pursuing nuclear weapons research.

**Changing of the Guard:  
From Sethna to Ramanna**

Although both Sethna and Ramanna favor a nuclear program based ultimately on self-sufficiency, they have disagreed on its direction since the nuclear test of 1974.

Sethna favored US assistance over that of the Soviet Union, took a moderate line on the nuclear threat from Pakistan, and opposed Indian development of nuclear weapons. Ramanna, a hardliner, has taken contrary positions on each issue. US Embassy officials in New Delhi report that the two men also clashed over the question of safeguards. Ramanna's view that India cannot afford strict safeguards, which Sethna might have accepted, prevailed.

In our judgment, Sethna fell, in part, because his domineering style offended Prime Minister Gandhi and other government officials in New Delhi. According to US Consulate officials in Bombay, Sethna was often at odds with other government officials on nuclear issues. We believe that his independence irritated Gandhi, and we suspect that his basic distrust of the Soviet Union added to her displeasure. In our opinion, Ramanna's personality is more compatible with Gandhi's style of management.

**Gandhi: Retaining Ultimate  
Policy Control**

We expect Gandhi will closely circumscribe Ramanna's decisionmaking authority, even though we believe he will have an influential voice in India's decisions on nuclear matters. Gandhi holds the atomic energy portfolio in the cabinet and makes all final decisions on important nuclear matters. According to the US Embassy in New Delhi, however, she relies heavily on Ramanna for advice, especially on technical matters. Embassy officials predict that Gandhi also will continue to consult Sethna in his retirement. Sethna's continued involvement in nuclear issues, in the Embassy's opinion, prevents Ramanna from becoming Gandhi's sole adviser in this area.

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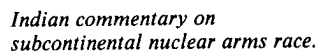
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Ramanna, in our opinion, wants to use a reactor deal with the Soviet Union to accomplish some of his major objectives for the civil and weapons-related programs. Soviet reactors, particularly if the agreement included some provision for local manufacture and technology transfer to India, would provide the

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quickest available means for reviving the ailing civil power program. Ramanna could use the technology transfer clauses in a prospective agreement to counter charges that he had compromised India's drive for nuclear self-sufficiency. Because the Soviet reactors do not require heavy water to operate, Ramanna could conserve Indian-produced heavy water for use in unsafeguarded reactors to produce plutonium, possibly for a nuclear weapons program. Currently, according to our analysis, India does not have enough heavy water available from indigenous sources to operate both its safeguarded power reactors and projected unsafeguarded reactors due to come on line in 1985. [redacted]

We believe that Ramanna will face strong domestic opposition to a reactor deal with the Soviet Union.

[redacted]  
[redacted] We suspect that some among India's senior political leadership will have reservations about tying India more closely to the Soviet Union. [redacted]  
[redacted]

#### **The Succession Question: After Ramanna, Who?**

Because Ramanna is already at the mandatory civil service retirement age (58) and will require yearly extensions to continue in office, he will, in our opinion, head the nuclear program for only a short time. We suspect that his enemies within the nuclear establishment will lobby hard for enforcement of the retirement policy as it was applied to Sethna, who was forced to retire at age 60 after having received two extensions. [redacted]

We regard the appointment of Ramanna's replacement as director of BARC—traditionally a stepping-stone to the top—as particularly important. [redacted]  
[redacted]

[redacted]  
[redacted] We suspect that Gandhi's delay in naming a replacement for Ramanna means that she lacks confidence in any of them. [redacted]

Although all previous nuclear appointments have come from within the DAE, some US Consulate officials have speculated that Gandhi might choose an outsider to succeed Ramanna. Professor S. Dhawan, currently chairman of the Space Commission, and Dr. S. Varadarajan, secretary of the Department of Science and Technology, are possible candidates. In the past Gandhi has made such interdepartmental personnel shifts. In our judgment, an appointment from the nonnuclear scientific establishment, particularly from the Department of Space, which was formerly a part of the DAE, would enable the Prime Minister to break with tradition. An outsider could, at least for the short term, deflect growing domestic criticism of the nuclear program by attributing current problems to his predecessors. [redacted]

#### **A Troubled Transition to a New Leadership**

We believe that longstanding personnel problems are preventing the establishment of a clear succession to a new generation of managers within the DAE. US interests will be affected in the longer term, in our view, by the likely emergence of a more nationalistic perspective, including a harder line on nuclear weapons research, within the nuclear establishment as a whole. [redacted]

**Personnel Problems.** According to Indian press reports, the DAE professional staff has been deeply disturbed by developments within the organization over at least the past three years. The press claims that Ramanna's appointment has been accompanied by a major shakeup within the department, including

<sup>3</sup> Indian law requires that an appointment be made within 60 days of a civil service vacancy, and the position has been vacant since Ramanna's transfer on 31 August. [redacted]

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forced early retirements, reorganization, and vigorous staff protests against arbitrary personnel practices.

Press and journal articles about the nuclear program say that the DAE's highly secretive and personality-oriented style of management is causing junior officers to complain about nepotism, inequitable promotions, and lack of opportunity. Press and academic articles about the nuclear program reported that in 1980 the BARC Professional Officers Association asked Gandhi to intervene on their behalf against the DAE management.

**Emerging Hardline Nationalism?** We believe that the nuclear establishment is becoming more nationalistic and is less willing to take US nonproliferation concerns into account.

Our analysis indicates that the training and career patterns of DAE employees, reinforced by the secretiveness and security consciousness endemic to any nuclear program, are major factors in the evolution of the nuclear establishment into a closed, specialized community. Even though the nuclear program faces a shortage of trained scientists, the Indian press reports that Ramanna is reluctant to hire Indian scientists returning from abroad and that those who are brought into the program face discrimination.

According to an article by P. K. Iyengar and others, the nuclear program is almost exclusively staffed by graduates of the BARC training school. Homi Sethna told a US audience in fall 1983 that India had not sent large numbers of scientists to the United States for training since the early 1960s. The school, which is located on the grounds of BARC, provides the equivalent of a master's program in nuclear and electrical engineering and the practical experience in research that BARC officials believe is lacking in the Indian university system.

Iyengar's article adds that the training school is also designed to build morale in the nuclear program.

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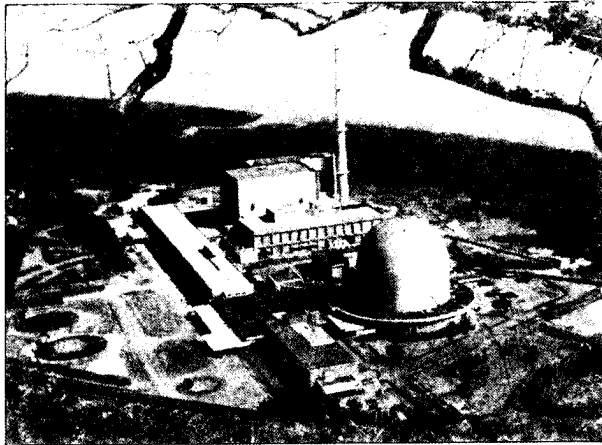
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The Bhabha Atomic Research Center. [REDACTED]

#### Outlook

**The Short Run: Greater Distance From the United States and Closer to the Soviets.** In our view, Raja Ramanna, as head of the nuclear program, will continue to put distance between himself and the United States and to favor closer ties with the Soviet Union. As his first public gesture in this direction, he has supported a new nuclear cooperation agreement with Moscow. [REDACTED]

[REDACTED] We believe that he will continue to support the purchase of Soviet power reactors. We also expect Ramanna to minimize the importance of US-supplied parts for the Tarapur reactors and to favor closing the reactors rather than accepting new nonproliferation conditions from any potential supplier. [REDACTED]

**The Longer Term: The Emerging Nuclear Leadership.** In our view, the Indian nuclear program will have a series of short-term chiefs over the next three to four years as the current generation of managers reaches retirement age and continued organizational infighting prevents the emergence of a clearly identifiable successor. If this is the case, we believe that the Indian civil program will experience growing technical and economic problems as it loses a clear sense of direction and trained personnel. Given this turnover, Prime Minister Gandhi may receive misleading or conflicting advice on critical nuclear issues, such as the direction of nuclear weapons research or assessments of the magnitude of the nuclear threat from Pakistan. [REDACTED]

We believe that support for nuclear weapons development within the technical establishment will increase as the present generation of managers retires. The younger generation of scientists has already shown signs of favoring nuclear weapons research. [REDACTED]

[REDACTED] Newer managers are also more likely to be products of the BARC training system, which encourages a closed, nationalist perspective and minimizes the importance of foreign training and experience. This support, by promoting research and development efforts by India's sizable staff of qualified nuclear scientists, will increase New Delhi's ability to test and deploy functional weapons, as compared to experimental devices, should Gandhi decide to proceed. [REDACTED]

#### Implications for the United States

The short- and long-term shifts that are occurring within the leadership of India's nuclear program will exert an influence within the Indian Government against cooperation with US nuclear nonproliferation objectives in several ways:

- The proweapons development faction led by Raja Ramanna appears to be in power for the moment and is in a position to enhance Indian technical capabilities.
- Ramanna may be advising Gandhi that Pakistan can already explode a nuclear device and that India should be prepared to stage its own test.
- If the succession to the leadership of the nuclear program remains uncertain, contenders for the top position may be tempted to demonstrate their nationalist credentials by putting more distance between themselves and the United States, causing them to oppose or at least fail to take US nonproliferation objectives into account in making policy. If the Indian civil power program continues to decline, this same group probably will blame the United States for withholding needed technology.

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- If the proweapons development group continues to lead the nuclear program, India's relations with Pakistan could deteriorate. This group would probably offer Gandhi a worst case analysis of Pakistan's nuclear program in order to justify continued weapons research and development. Gandhi makes all major security policy decisions, but we believe that her nuclear policy advisers have strongly influenced her in the past. If Pakistan discovers Indian preparations to resume nuclear testing or to develop weapons, Islamabad would most likely intensify its own program. Over the longer term, the proweapons development group's suspicions could bring about an Indo-Pakistani nuclear arms race.
- A nuclear arms race in the subcontinent would present a major failure for US global nonproliferation policy. If the supplier states failed to terminate trade with the new nuclear powers, other countries could interpret this as evidence that nonproliferation controls have no teeth. US forces in the region would have to take Indian, even Pakistani, nuclear weapons into account in strategic and tactical planning. The Soviet Union and China might also regard subcontinent nuclear weapons as a security threat.
- The US security relationship with Pakistan would be undermined, and US efforts to improve relations with India would be seriously impeded.

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